

**U.S.S.N. 09/139,386**  
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As noted, Claim 1 is amended to more distinctly claim the subject matter by specifying that the second region contains a selectively chemically cleavable site. Claims 2 and 5-8 are amended to reflect the amendment of Claim 1.

As noted in the previous response, basis for the amendment can be found, for example, in the specification at page 6, lines 8-9; page 28, lines 19-24; page 38, lines 12-16; page 39, lines 8-12; page 40, lines 27-28; page 41, lines 1-6; and page 43, lines 3-4 and 23-28, as well as in Examples 3-5.

Recitation of "selectively cleavable" appears throughout the specification. For example, the specification in the Summary recites:

The present invention provides an oligonucleotide composition containing a modified primer having a 5' end and a 3' end and containing at least one selectively cleavable site.

At page 19, lines 29-24, the specification recites:

"Cleavable site" as used herein is a reactive moiety typically . . .  
(ii) selectively cleavable by appropriate non-enzymatic or enzymatic means including chemical, thermal, or photolytic, to enable release of primer extension products that typically contain none or a relatively small number of base pairs of the modified primer. Cleavable site refers both to the selectively cleavable functional group as described above and also to protected forms thereof. The cleavable site may, for example, be (i) located along the polymer backbone (i.e., a modified 3'-5' internucleotide linkage in place of one of the phosphodiester groups), (ii) as a substituent on or replacement of one of the bases or sugars of the oligonucleotide primer, or (iii) as the 3' terminal residue (e.g., a ribonucleotide at the 3' end of the oligodeoxyribonucleotide primer).

At page 43, lines 3-4 and 23-28, the specification recites:

Another preferred selectively cleavable functionality for use in the invention is phosphorothioate. The preparation of primers containing a 3'(S)-phosphorothioate or a 5'(S)-phosphorothioate internucleotide linkage is described in Examples 1B and 1C, respectively.

At page 62, the specification recites:

In an alternative approach, a base-specific nested fragment set is produced by selectively cleaving a DNA or RNA molecule modified to contain selectively cleavable groups (*e.g.* dUTP or amino functionalized nucleoside triphosphates) at positions corresponding to a particular base. The resulting uridine-modified oligonucleotide is then treated with uracil

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DNA glycosylase to form a set of fragments, preferably a nested set captured onto a solid phase. Similarly, a 5'-amino-modified target molecule is cleaved by treatment with acid.

At page 64, the specification includes a section designated "Cleavage:"

**4.3.2 CLEAVAGE**

Cleavage of the selectively cleavable site may be carried out as described in Section 4.2.1 and in Examples 1A-D and Example 3.

At page 66, the specification recites:

As described in Example 3, a synthetic 17-mer DNA probe containing a cleavable ribose in the 7-position was selectively cleaved by ammonium hydroxide treatment.

Hence, the term "selectively cleavable" is used to describe the cleavable sites in the primers used in the methods. Therefore, no new matter is added.

\* \* \*

In view of the above remarks, reconsideration and allowance of the application are respectfully requested.

Respectfully submitted,  
Heller Ehrman White & McAuliffe LLP

By: 

Stephanie L. Seidman  
Registration No. 33,779

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**Address all correspondence to:**  
Heller Ehrman White & McAuliffe LLP  
4350 La Jolla Village Drive, 7th Floor  
San Diego, CA 92122-1246  
Telephone: 858/450-8400  
Facsimile: 858/587-5360  
E-mail: sseidman@HEWM.com